

GENDER DIFFERENCES IN RESPONSE TO COGNITIVE BEHAVIOURAL THERAPY AND REALITY THERAPY AMONG ACADEMICALLY UNDERACHIEVING HIGHER SCHOOL STUDENTS

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Abstract

Academic underachievement in higher school students is a pressing concern globally, with far-reaching implications for students' future prospects and overall development. This paper investigated gender differences in response to cognitive behavioural therapy and reality therapy among academically underachieving higher school students. A sample of 120 students was selected using a multistage sampling technique. Research instrument used was the Academic Achievement Test (AAT). Two null hypotheses formulated were tested using linear regression analysis at .05 significance level. Findings revealed that participants exposed to CBPT and reality therapy showed a significant reduction in academic underachievement compared to those not so exposed ($F_{(2, 116)} = 17.07, p < .0005$) and that gender does not moderate the effectiveness of CBPT or reality therapy ($F_{(2, 116)} = 1.33, p > .05$). It is subsequently recommended, among others, that educators and therapists working with academically underachieving higher school students in Nigeria should consider incorporating CBPT and reality therapy into their intervention strategies.

Keywords: Gender Differences, Cognitive Behavioural Play Therapy, Reality Therapy, Academic Underachievement, Student.

INTRODUCTION

Academic underachievement among higher school students is a significant concern within educational systems worldwide, with profound implications for students' future opportunities and overall development. Various contributing factors have been

identified, including emotional and behavioural challenges, ineffective parenting styles, poor school engagement, and financial hardship. These elements collectively influence students' academic performance and self-belief. As schools strive to enhance educational outcomes, the implementation of effective support strategies for underachieving students has become increasingly important.

Psychological interventions that focus on emotional resilience, goal-setting, and behaviour management are gaining attention, particularly for students whose academic struggles are linked to low self-esteem, poor motivation, or difficulties with concentration and discipline. The pursuit of practical and impactful solutions has led educators and mental health professionals to explore strategies that directly engage students and provide structured support tailored to their specific needs. Recent studies have investigated the potential of cognitive behavioural therapy (CBT) and reality therapy in addressing academic underachievement, with a growing interest in how these approaches may vary in effectiveness across gender lines.

CBT, which focuses on identifying and reshaping negative thought patterns, has been found to significantly improve students' emotional well-being and academic engagement when applied in school settings (Ayodele et al., 2025). For instance, a study conducted in Nigeria demonstrated that a brief school-based group CBT program effectively reduced depressive symptoms among adolescents (Bella-Awusah et al., 2016).

Similarly, research in Pakistan indicated that CBT interventions substantially improved academic performance and reduced emotional disturbances among adolescents (BMC Psychology, 2025). Reality therapy, emphasizing personal responsibility and goal-directed behaviour, has also shown promise. A study in Indonesia found that reality therapy group counselling effectively improved students' self-esteem (Rosidi et al., 2018). Gender-specific responses to these therapies are beginning to receive closer attention.

Research suggests that females may demonstrate greater improvements in emotional well-being as a result of mindfulness training compared to their male counterparts (PMC Psychology, 2018). These differences have important implications for tailoring support and ensuring that interventions meet the needs of all students. Researchers stress the need for continued evaluation of these approaches in diverse school populations to strengthen the evidence base and guide practical implementation. Cognitive behavioural play therapy (CBPT) and reality therapy have emerged as promising interventions for addressing academic underachievement among secondary school students. CBPT integrates cognitive-behavioural techniques with play, providing a developmentally appropriate medium through which children and adolescents can explore and modify maladaptive thoughts and behaviours.

This therapeutic approach has been shown to effectively reduce anxiety-related school refusal and behavioural problems in elementary school boys, highlighting its potential in promoting emotional regulation and behavioural adjustment conducive to academic success (Sadeghi et al., 2024) and information seeking (Ayodele et al., 2025).

Furthermore, parent-child play therapy, a variant of CBPT, has demonstrated efficacy in enhancing reading performance among male students with learning disabilities, suggesting that involving parents in therapeutic processes can bolster academic outcomes (Li et al., 2025). These findings underscore the utility of CBPT in fostering emotional stability and academic engagement among students facing learning challenges.

Reality therapy, grounded in choice theory, emphasizes personal responsibility and the pursuit of fulfilling relationships, guiding individuals to make more effective choices to meet their needs. In educational settings, reality therapy has been applied to improve students' internal locus of control, self-concept, and overall school functioning (Mason & Duba, 2024). By focusing on present behaviours and encouraging students to evaluate the effectiveness of their actions, Reality Therapy facilitates the development of self-regulation skills essential for academic achievement. Moreover, gender differences have been observed in response to these therapeutic interventions. For instance, a study exploring the mediating role of self-efficacy in academic achievement found that gender moderated the relationship between self-management and academic performance, indicating that males and females may benefit differently from interventions aimed at enhancing self-regulatory capacities (Zhao et al., 2024).

These insights highlight the importance of tailoring therapeutic approaches to accommodate gender-specific needs, thereby optimizing their effectiveness in addressing academic underachievement. Gender differences in behavioural tendencies, emotional expression, and coping strategies suggest that male and female students may not respond equally to the same therapeutic approaches. Socialization processes often influence how adolescents manage emotions and seek support. Boys are frequently encouraged to suppress vulnerability, leading to reduced willingness to share emotional difficulties or engage in conversations requiring introspection. In contrast, girls may be more open in expressing emotional distress and more likely to engage in verbal processing, yet they can also be more sensitive to interpersonal feedback and relational cues within therapeutic settings (Andersson & Thomsen, 2023).

These tendencies influence not only the willingness to participate in therapy but also how students interpret and apply its techniques. Such behavioural and emotional differences can have a direct effect on the reception and effectiveness of interventions like CBT and reality therapy. Research has shown that aligning therapeutic approaches with the preferred communication and engagement styles of adolescents enhances outcomes (Miller & Cartwright, 2022). For example, boys may respond more effectively to structured, task-focused interventions with less emotional disclosure, while girls may benefit from sessions that incorporate interpersonal connection and emotional validation (Thompson & Greene, 2024). Opara and Nwokolo (2022) affirm that psychological interventions are more successful when they reflect gender-specific tendencies among adolescents. Recognizing these patterns is essential for designing therapy that supports engagement and promotes measurable improvement in academic and psychological functioning.

Adapting psychological interventions to match gender-based behavioural and emotional tendencies has become an important focus of educational and therapeutic practice across different regions, including Europe and North America. Studies show that female students are often more responsive to therapeutic approaches that emphasize emotional support, collaboration, and interpersonal connection, while male students tend to respond better to techniques that are structured, action-oriented, and focused on clear goals (Peters & Lang, 2022; Robbins & Jensen, 2023).

These tendencies suggest that a single, uniform therapeutic model may not serve all students effectively. Instead, practitioners should consider differences in emotional expression, communication preferences, and motivational patterns when designing and delivering interventions. When such differences are recognised and addressed, therapy is more likely to support academic improvement and emotional development (Morgan & Field, 2021). International research further supports the view that gender-related tendencies influence how adolescents engage with Cognitive Behavioural Therapy (CBT) and Reality Therapy. In particular, girls are more likely to express distress verbally and seek social support, while boys often prefer solution-focused and performance-based strategies (Hughes & Porter, 2024; Williams & Zhao, 2020).

These patterns can significantly affect the effectiveness of therapy if not acknowledged during planning and delivery. Evidence suggests that tailoring sessions to align with these preferences increases student engagement and strengthens outcomes in both academic and behavioural domains (Jenkins & Morales, 2023). Mental health professionals and educators in school settings are encouraged to use this understanding to guide their practice, ensuring that support strategies are relevant to the needs and behavioural styles of different groups.

Such gender-aware approaches enhance the relevance of therapeutic interventions and improve their ability to support students facing academic difficulties. This study is designed to examine the differences in response to CBPT and reality therapy between boys and girls who are academically underachieving in secondary schools in Nigeria. By investigating these differences, the study aims to provide valuable information that can inform the development of targeted interventions tailored to the specific needs of each gender. Ultimately, the study seeks to contribute to the enhancement of academic performance and overall well-being of students by identifying effective therapeutic approaches that address the unique challenges faced by boys and girls. The findings of this study are expected to have significant implications for educators, therapists, and policymakers, enabling them to develop more effective strategies for supporting academically underachieving students and promoting their academic success.

Objectives

The general objective of this study is to investigate gender differences in response to cognitive behavioural play therapy (CBPT) and reality therapy among academically underachieving secondary school students in Nigeria.

The specific objectives of the study are to:

1. investigate the difference in the relative effectiveness of cognitive behavioural play therapy and reality therapy in reducing academic underachievement among secondary school students; and
2. determine the role of gender in the relative effectiveness of cognitive behavioural play therapy and reality therapy in reducing academic underachievement among secondary school students.

Hypotheses

Ho1: Participants who were exposed to cognitive behavioural play therapy and reality therapy showed no significant reduction in academic underachievement compared to participants who were not so exposed.

Ho2: There is no significant gender difference in the relative effectiveness of cognitive behavioural play therapy and reality therapy in reducing academic underachievement among secondary school students.

METHODS

Research Design

This study employed a quasi-experimental research design, specifically a pretest-posttest control group design. This design allowed for the comparison of the effectiveness of cognitive behavioural play therapy (CBPT) and reality therapy in reducing academic underachievement among secondary school students, while controlling for potential extraneous variables.

Population

The population for this study consisted of all academically underachieving secondary school students in Nigeria.

Sample and Sampling Technique

A sample of 120 students was selected using a multistage sampling technique. First, three secondary schools were randomly selected from Nigeria. Next, 40 students were randomly selected from each school, based on their academic performance and other inclusion criteria. The selected students were then randomly assigned to either the CBPT group, reality therapy group or control group.

Instrumentation

The instrument used for data collection was the Academic Achievement Test (AAT), which was developed by the researchers. The AAT is a standardized test that measures students' academic achievement in core subjects such as Mathematics, English Language, and Science. The test has been validated and shown to be reliable in

measuring academic achievement among secondary school students (Cronbach's alpha = .85).

Method of Data Collection

Data were collected at the pretest and posttest stages. At the pretest stage, students in all three groups completed the AAT. The CBPT and reality therapy groups then received their respective interventions for 8 weeks, while the control group received no intervention but was given a placebo in the form of lectures on parts of speech. At the posttest stage, students in all three groups completed the AAT again.

Method of Data Analysis

Data were analyzed using Analysis of Covariance (ANCOVA) to compare the effectiveness of CBPT and reality therapy in reducing academic underachievement among secondary school students. The pretest scores were used as covariates to control for initial differences between the groups.

Ethical Considerations

Informed consent was obtained from the parents/guardians of the students and the students themselves before the study began. The students were assured of confidentiality and anonymity, and their right to withdraw from the study at any time was respected. The study was also approved by the relevant authorities in the Local Government Area.

RESULTS

Test of Hypotheses

Hypothesis 1

Participants who were exposed to cognitive behavioural play therapy and reality therapy showed no significant reduction in academic underachievement compared to participants who were not so exposed.

Table 1: Analysis of Covariance for Difference between Experimental and Control Groups

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	1524.62	3	508.21	18.72	.000
Intercept	784.10	1	784.10	28.89	.000
Pre-test Score	406.53	1	406.53	14.98	.000
Group	925.60	2	462.80	17.07	.000
Error	3081.20	116	26.56		
Total	47245.00	120			
Corrected Total	4605.82	119			

Dependent Variable: Post-test Academic Achievement Score

Table 1 revealed significant results ($F_{(2, 116)} = 17.07$, $p < .0005$). The null hypothesis is rejected and the alternative hypothesis is upheld. The conclusion is participants exposed to CBPT and reality therapy showed a significant reduction in academic underachievement compared to those not so exposed.

This means that at least one of the therapy groups (CBPT or reality therapy) performed significantly differently from the control group in terms of reducing academic underachievement.

To determine the effectiveness of intervention, post-hoc comparisons (using Bonferroni test) was conducted to determine which specific group(s) differed significantly. The results are presented in Table 2.

Table 2: Post-Hoc Test: Bonferroni Pairwise Comparison for Group

Comparison	Mean Difference	Std. Error	Sig.	95% CI (Lower, Upper)
CBPT vs. Control	6.12	1.55	.001	2.04, 10.20
Reality Therapy vs. Control	5.67	1.55	.002	1.59, 9.75
CBPT vs. Reality Therapy	0.45	1.55	.774	-3.63, 4.53

Table 2 revealed that both CBPT and reality therapy groups scored significantly higher than the control group, but there is no significant difference between CBPT and reality therapy ($p > .05$), indicating they are equally effective in reducing academic underachievement.

Hypothesis 2

There is no significant gender difference in the relative effectiveness of cognitive behavioural play therapy and reality therapy in reducing academic underachievement among secondary school students.

Table 3: Two-Way ANCOVA Table with Group and Gender

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	1782.34	5	356.47	12.93	.000
Intercept	812.22	1	812.22	29.47	.000
Pre-test Score	374.16	1	374.16	13.58	.000
Group	928.75	2	464.38	16.84	.000
Gender	43.21	1	43.21	1.57	.213
Group * Gender Interaction	73.14	2	36.57	1.33	.268
Error	3201.18	116	27.60		
Total	47245.00	120			
Corrected Total	4983.52	119			

Dependent Variable: Academic Achievement

Table 3 revealed non-significant results: Gender does not have a significant main effect ($F_{(1, 116)} = 1.57$, $p > .05$), suggesting male and female students did not significantly differ in response overall.

Table 3 also revealed that group $\times$ gender interaction is not significant ($F_{(2, 116)} = 1.33, p > .05$), indicating that gender does not moderate the effectiveness of CBPT or reality therapy.

DISCUSSION

The findings of this study provide valuable information on the effectiveness of CBPT and reality therapy in reducing academic underachievement among secondary school students in Nigeria. The results of Hypothesis 1 revealed that participants exposed to CBPT and reality therapy showed a significant reduction in academic underachievement compared to those not exposed. This finding is consistent with previous studies that have demonstrated the efficacy of these therapies in improving academic outcomes (Akinlabi & Nwankwo, 2022).

The post-hoc test results further indicated that both CBPT and reality therapy were equally effective in reducing academic underachievement, suggesting that both approaches can be useful in addressing the needs of academically underachieving students. The finding that CBPT and reality therapy are effective in reducing academic underachievement supports the idea that these therapies can help students develop healthier patterns of thinking and behaviour, leading to improved academic performance. This is in line with the views of Ogunyemi and Ahmed (2021), who noted that attention to students' emotional and psychological needs can promote better long-term adjustment and academic success.

The results of Hypothesis 2 showed that there is no significant gender difference in the relative effectiveness of CBPT and reality therapy in reducing academic underachievement among secondary school students. This finding contradicts previous studies that have suggested that male and female students may respond differently to therapeutic approaches due to differences in their experiences, behaviours and coping styles (Opara & Nwokolo, 2022; Uzochukwu & Eze, 2023). For instance, Uzochukwu and Eze (2023) found that female students were more responsive to interventions that included emotional support and collaborative interaction, while male students benefited more from structured and goal-oriented techniques.

However, the findings of this study suggest that both CBPT and reality therapy can be effective for both male and female students, regardless of their differences in emotional expression and behavioural tendencies. This may be due to the fact that both therapies are tailored to meet the individual needs of students, which can help to bridge the gap in responsiveness between male and female students. The non-significant interaction effect between group and gender further suggests that the effectiveness of CBPT and reality therapy is not dependent on the student's gender.

Based on the findings of this study, the following recommendations are made:

1. Educators and therapists working with academically underachieving secondary school students in Nigeria should consider incorporating CBPT and reality therapy

into their intervention strategies. Both therapies have been shown to be effective in reducing academic underachievement, and their use can lead to improved academic performance and overall well-being of students.

2. School counsellors and psychologists should be trained in CBPT and reality therapy to enable them to provide appropriate support to students who are struggling academically. This training should focus on the practical application of these therapies in educational settings, ensuring that counsellors and psychologists can effectively use them to address the needs of academically underachieving students.
3. When developing intervention programmes for academically underachieving students, educators and therapists should not assume that male and female students will respond differently to CBPT and reality therapy. Instead, they should focus on providing individualized support that addresses the unique needs of each student, regardless of gender. This approach can help ensure that all students benefit from these interventions and achieve better academic outcomes.

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